

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
29 July 2004 (29.07.2004)

PCT

(10) International Publication Number  
**WO 2004/064005 A3**

(51) International Patent Classification<sup>7</sup>: **G08C 23/04**

(21) International Application Number:  
**PCT/IB2003/006279**

(22) International Filing Date:  
15 December 2003 (15.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03100052.4 14 January 2003 (14.01.2003) EP

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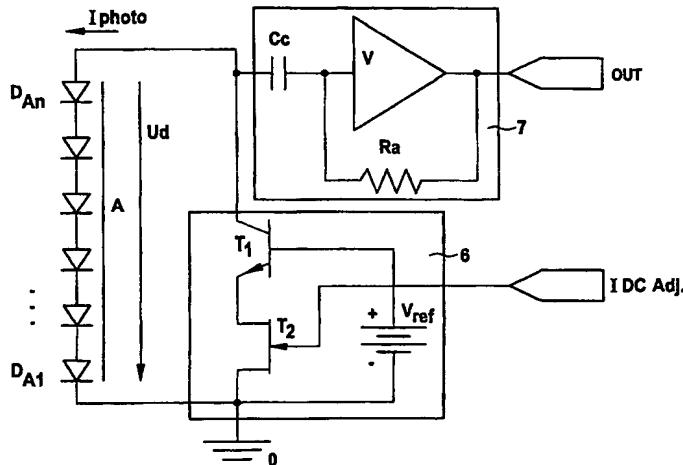
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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,

*[Continued on next page]*

(54) Title: CIRCUIT ARRANGEMENTS AND METHODS FOR A REMOTE CONTROL RECEIVER HAVING A PHOTODIODE



(57) Abstract: A control unit (2) of a remote control receiver sets the forward or reverse direction operating mode of the photodiode (1) as a function of the useful signal level of its output signal, and to be precise, during standby, the photovoltaic operating mode (forward mode), since in this mode no external bias current is required. If the useful signal level of the photodiode (1) exceeds a predefined threshold, the reverse mode is set, and this brings with it a higher sensitivity. A series circuit (A) of a number of identical photodiodes  $D_{A1} \dots D_{An}$  in the forward mode allows the realization of a controlled current source (6) having a transistor (T), since the permissible diode voltage ( $U_d$ ) of the overall arrangement may have  $n$  times the value of the operating voltage of an individual photodiode. Thus at the same time the voltage across the individual diodes can be set to a very low value and a favorable operating range for the current source can be set. The possible sensitivity of the receiver module having diodes in this operating mode can thereby be considerably increased.

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SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

**(88) Date of publication of the international search report:**

16 September 2004

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/06279

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G08C23/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G08C H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 889 605 A (BOISSEAU DANIEL ET AL) 30 March 1999 (1999-03-30) column 3, line 56 – column 4, line 10 column 4, line 36 – column 5, line 17	1-7
Y	EP 0 817 353 A (KUNERT WILLI) 7 January 1998 (1998-01-07) cited in the application	8-12
A	abstract; figure 3	1-7
Y	EP 0 680 144 A (PLESSEY SEMICONDUCTORS LTD) 2 November 1995 (1995-11-02) abstract; figure 1	8-12
A	EP 0 666 657 A (NOKIA TECHNOLOGY GMBH) 9 August 1995 (1995-08-09) column 4, line 50 – line 57 abstract	1, 4, 8, 12

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

28 July 2004

Date of mailing of the international search report

04/08/2004

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International Application No  
PCT/IB 03/06279

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